

# **Amendments to the Pennsylvania Clean Vehicles Program: Zero-Emission Vehicle Program**

**Small Business Compliance  
Advisory Committee**

**October 27, 2021**

# Rulemaking Outcomes

- Reduce emissions of air pollution in Pennsylvania from the Pennsylvania light-duty vehicle fleet.
- Help ensure Pennsylvania automobile dealers and consumers can get ZEVs.
- Help keep Pennsylvania competitive in regional EV sales market.

# Low Emission Vehicles: LEV

- LEV is an acronym for Low Emission Vehicle. The LEV standard is applicable to criteria pollutants and GHG for the entire fleet of vehicles in a state or region. Manufacturers can produce vehicles that exceed the LEV fleet standard to generate credits. Pennsylvania currently has a LEV program.
- LEV requirements in Pennsylvania are set forth in the regulations implementing our Pennsylvania Clean Vehicles Program.
- Pennsylvania's requirements are realigned with California's program.

# Zero Emission Vehicles: ZEV

- The ZEV program is intended to encourage manufacturers to deliver extra ZEVs to PA. Extra ZEVs delivered will reduce criteria and GHG emissions. Manufacturers can produce more vehicles than required under the program to generate credits. Pennsylvania does not currently have a ZEV program.
- This rulemaking would incorporate the current California ZEV requirements into our Pennsylvania Clean Vehicles Program.
- If and when California modifies its ZEV Program, a new rulemaking would be necessary to incorporate those changes.

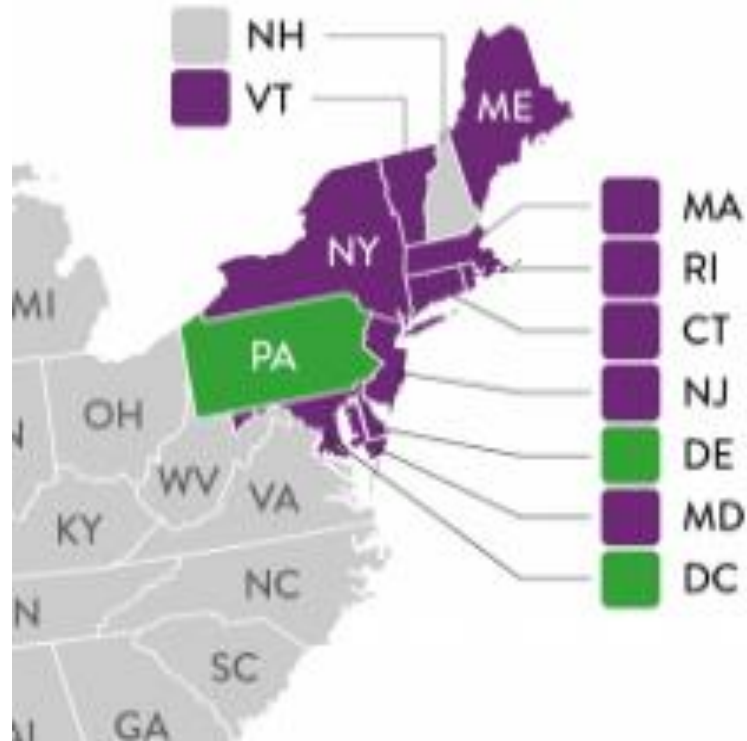
# Rulemaking Summary

- Proposed Amendments to Pennsylvania Clean Vehicles Program:
  - Amend Chapter 126, Subchapter D to adopt the requirements for the California Air Resources Board (CARB) ZEV program beginning model year (MY) 2026.
  - Require automakers to demonstrate compliance with the currently adopted CARB greenhouse gas (GHG) fleet average emissions standard based on sales in Pennsylvania and not California as currently allowed.
  - Update definitions in Chapter 121, section 121.1.



# LEV and ZEV States

- States that have adopted both LEV and ZEV standards
- States that have adopted LEV
- States currently working to adopt both standards
- States that follow federal standards



The Virginia Legislature voted in February 2021 for VA to also implement the CARB LEV/ZEV Program.

Source: [www.pca.state.mn.us/air/about-clean-cars-minnesota](http://www.pca.state.mn.us/air/about-clean-cars-minnesota) (accessed 3/9/21)

# Background on CARB Standards

- California is allowed to set its own automobile emission standards.
- Such California standards must be granted a waiver by the EPA.
- EPA is in the process of reinstating California's waiver.
- Allows states to adopt and enforce standards for new motor vehicle/engine emissions control if such standards are identical to California.



# Background on PCV Program

- The Pennsylvania Clean Vehicles Program was last revised December 2006 to implement the CARB LEV program in PA.
  - Applied starting MY 2008 to new passenger cars and light-duty trucks *“sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired, received, titled or registered in this Commonwealth.”*
- The CARB ZEV percentage program was not adopted by PA.

\* 36 Pa.B. 7424, December 9, 2006

# Proposed Amendments

- Incorporate by reference only the current version of CARB ZEV program requirements beginning in MY 2026.
  - Automakers must generate or obtain ZEV credits equal to or greater their required credit obligation for Pennsylvania.
  - The credit obligation for each manufacturer is a percentage of the average of the total Pennsylvania sales of PC/LDTs in the previous 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> model year. The annual CARB credit obligation percentage is 22% for MY 2025 and beyond.
  - Only medium and large volume manufacturers are subject to the credit obligation.
  - Full or partial ZEV credits are generated by any vehicle manufacturer who delivered for sale/lease in PA a credit-eligible ZEV vehicle.
  - Automakers can buy/sell ZEV credits between each other.

# Proposed Amendments

- EVs eligible for ZEV credit generation include:
  - Full EVs – up to 4 ZEV credits maximum per vehicle depending on electric range.
  - Plug-in Hybrid Electric Vehicles (PHEV) -maximum 1.1 ZEV credit.
  - Hydrogen Internal Combustion Engine (HICE) vehicles – maximum 1.25 ZEV credit.
  - Range Extended Battery Electric Vehicles (BEVx) – same formula as full EV with minimum 75-mile electric range.
  - Neighborhood Electric Vehicles (NEV) – maximum 0.15 ZEV credit.

# ▶ Proposed Amendments to Chapter 126

- Amend § 126.412. Light-duty vehicle emissions requirements:
  - Revise fleet average requirement language to reflect NMOG+NO<sub>x</sub> requirement.
  - Delete outdated MY 2008 through 2010 NMOG early credit generation.
  - Add GHG fleet average requirement for PA sales and GHG credit equivalency.
  - Add environmental performance label requirement to be consistent with CARB.

NMOG – Non-methane Organic Gas  
NO<sub>x</sub> — Oxides of Nitrogen

# ▶ Proposed Amendments to Chapter 126

- Add new § 126.412a. Zero-Emission Vehicle requirements:
  - ZEV credit percentage requirement for MY 2026.
  - Establish three model year PA ZEV Early Action Credit (EAC) mechanism (MY 2023 through MY 2025) for transition.
  - Sets ZEV credit generation, banking and trading provisions, and establishes requirements for addressing ZEV credit deficits.

# Chapter 126 Amendments

- Amend §§ 126.421, 126.422. Applicable New Motor Vehicle Testing:
  - Aligns incorporation by reference to Title 13 CCR Division 3, Chapter 1 inclusively
- Amend § 126.432. Light-duty vehicle fleet average reporting requirements:
  - Removes obsolete NMOG compliance language for MY 2008, 2009 & 2010
  - Specifies NMOG + NO<sub>x</sub> and GHG fleet average compliance reporting requirements and submission deadlines

# ▶ Proposed Amendments to Chapter 126

- Add new § 126.433. Zero-Emission Vehicle reporting requirements:
  - Establishes ZEV credit percentage compliance reporting requirements deadline.
  - Defines five-year record retention requirement for automakers.
  - Lists requirements for automakers to earn EACs and requires DEP to add those credits to the automakers CARB ZEV credit tracking system for MY 2026 compliance.

# Summary of Environmental Benefits

- Estimated environmental benefits trends:
  - Overall decrease of criteria pollutants (NO<sub>x</sub>, VOC (NMOC), PM<sub>2.5</sub>, SO<sub>2</sub>) and air toxics(e.g. benzene).
  - Contributes towards attainment and maintenance of compliance with National Ambient Air Quality Standards (NAAQS).
  - Decrease GHGs.
  - Cleaner air means improved health, welfare and environment in the Commonwealth.

VOC – Volatile Organic Compounds

PM<sub>2.5</sub> – Particulate Matter <2.5µm

SO<sub>2</sub> – Sulfur Dioxide



# ZEV Trends and Economic Benefits

- ZEV Trends:
  - Plug-in EV and full-EV demand is increasing nationwide and in Pennsylvania.
  - EV battery and manufacturing costs decreasing globally.
  - Major automakers are making commitment to manufacture affordable EVs.
  - Charging infrastructure is being built out to accommodate demand.
- Automobile manufacturers direct ZEV's to dealers in states with ZEV programs.
- Adopting ZEV will:
  - Expand ability of Pennsylvania auto dealers to acquire and sell ZEVs.
  - Provide additional consumer choice in their vehicle purchases.
  - Help keep Pennsylvania competitive in regional EV sales market with neighboring states already with existing Section 177 ZEV programs.

# Social/Economic Effects of Rule

- Proportional environmental / health benefit in urban and Environmental Justice areas.
- Effect on >1000 PA new car dealer establishments:
  - Vast majority are small businesses.
  - Increased sales vs. decreased service.
  - Uncertainty in automaker/dealership model in future.
  - Used-vehicle dealers and repair-only shops may see secondary effects (also generally small businesses).
- Positive effect on PA businesses that would benefit from new supply chains for increased national EV manufacturing.
- Helps meet consumer demand and interests.
- Reduced operating/maintenance costs for owners.

## ➤ Social/Economic Effects of Rule (cont.)

- Use existing and planned charging infrastructure.
- PA would become the 3<sup>rd</sup> largest ZEV state.
- Automakers will be given ability to earn EACs to help comply with model year 2026 ZEV credit requirement.
- Work with CARB/automakers to estimate MY 2026 and beyond effects.

# Proposed Rulemaking Schedule

- Proposed Rule to EQB – 4<sup>th</sup> quarter 2021.
- Public Comment Period – 60 days.
- 3 public hearings/information meetings – TBD.
- Final Rule to EQB – 4<sup>th</sup> quarter 2022.
- State Implementation Plan Submittal – 4<sup>th</sup> quarter 2022.



**pennsylvania**

DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Air Quality

Questions?

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